UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
LIN, WEN TAI

ART UNIT	PAPER NUMBER
2454	

NOTIFICATION DATE	DELIVERY MODE
10/14/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

	Application No.	Applicant(s)
Office Action Summary	10/518,553	ENQVIST, JUHANA
	Examiner	Art Unit	
	Wen-Tai Lin	2454	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 August 2008*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,9-12 and 14-52* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6, 9-12 and 14-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-6, 9-12 and 14-52 are presented for examination.

2.   Claim 3 is objected to because it depends on a later claim 10. It is noted that Applicant
may have been mistakenly typed as "10" instead of "1" in the previous amendment filed
11/27/2007. Correction is requested in response to this office action.

3.   The text of those sections of Title 35, USC code not included in this action can be found
in the prior Office Action.

Claim Rejections - 35 USC § 102

4.   Claims 1-6, 9-12, 14-17 and 24-52 are rejected under 35 U.S.C. 102(e) as being
anticipated by Krishnamurthy et al.[U.S. Pat. No. 6421676].

5.   Krishnamurthy was cited in the previous office action as a secondary prior art.

6.   As to claim 1, Krishnamurthy teaches the invention as claimed including: a method for
mediating event records between a generation layer of events [e.g., 104, Fig. 1A] and an
operation system layer of events [e.g., 112, 114, Fig. 1A] in a communications network by

means of a mediation layer of events [e.g., 108a – 108n, Fig.1A], which includes at least one first

self-contained component of the mediation layer [e.g., 108b, Fig. 1A] and at least one second

self-contained component of the mediation layer [e.g., 108a, Fig. 1A], which operates

independently of each first component of the mediation layer, and at least one buffer [e.g.,

Abstract; 402, 404, 408, Fig. 4A], the method comprising:

collecting event records from an element of the generation layer of events substantially

continuously as a stream, by the at least one first self-contained component of the mediation

layer, processing the collected event records substantially continuously [e.g., col. 13, lines 43-55;

col.3, lines 43-58], wherein the step of processing includes:

writing the output from each of the at least one first self-contained component into one of

said at least one buffer, and reading the input for each of the at least one second self-contained

component from one of said at least one buffer, delivering the processed event records to an

element of the operation system layer of events substantially continuously as a stream, by the at

least one second self-contained component of the mediation layer [e.g., Fig. 4A; col.5 line 62 –

col.6 line 6],

wherein the event records are passed through at least three self-contained components of

the mediation layer, starting from one of the first self-contained components, then through at

least one third self-contained component and finally through one of the second self-contained

components [e.g., Figs. 1A-1B show data collection hierarchy that may take as many levels as

needed to cover the intended collection nodes; col.6, lines 1-20],

wherein the step of delivering event records comprises writing- the event records output

by a preceding self-contained component of the mediation layer into a buffer, and reading the

buffer substantially continuously by the subsequent self-contained component of the mediation
layer [e.g., col.5 lines 14-40],

wherein after reading- an event record from a buffer, a copy of the event record [e.g.,
CTOC; col. 7, lines 39-67; note that CTOC contains a index (410, Fig. 4A) pointing to a depot
(408, Fig.4A) where a corresponding data segment is stored] is retained in the buffer, and
removed from the buffer only after successfully outputting the event record from the reading
self-contained component of the mediation layer [e.g., 508-514, Fig.5A; col. 9, lines 27-33].

7.   As to claims 2-3, Krishnamurthy further teaches that at least part of the step of
processing event records is performed by at least one first self-contained component of the
mediation layer and at least part of the step of processing event records is performed by at least
one second self-contained component of the mediation layer [e.g., col.2, lines 58-65; i.e., the
network of data processing systems includes endpoints, gateways, and collectors, each has
certain processing functionalities].

8.   As to claims 4 and 6, Krishnamurthy further teaches that at least part of the step of
processing event records is performed by at least one third self-contained component of the
mediation layer that operates independently of the other self-contained components of the
mediation layer [Note that Krishnamurthy's network of data processing system does not limit the
number of collection nodes].

9.   As to claim 5, Krishnamurthy further teaches that at least two different hosts are used
such that at least one of the self-contained components of the mediation layer runs in a first host
and at least one of the other self-contained components runs in another host [e.g., col. 4, lines 45-
62; i.e., each collection node is by itself a network node, meaning that they are different hosts].

10.   As to claim 10, Krishnamurthy further teaches that the preceding self-contained
component of the mediation layer outputs event records into the buffer grouped into small groups
of event records, and the subsequent self-contained component of the mediation layer reads event
records from the buffer in small groups of event records [e.g., col.7 lines 39-50; 408, Fig.4A].

11.   As to claim 11, Krishnamurthy teaches that at least two separate self-contained
components of the mediation layer write event records into a single buffer [e.g., 108b of Fig. 1A,
wherein three gateway nodes feed data to the same collector 108b].

12.   As to claim 12, Krishnamurthy further teaches that at least two separate self-contained
components of the mediation layer read event records from one and the same buffer [e.g., 204,
Fig. 2B; col. 4, lines 45-62; col.5, lines 42-61; i.e., depending on channel bandwidth, two
collector nodes reading from one buffer is just an example of customized collection network
topology].

13.   As to claim 14, Krishnamurthy further teaches that that the retained event record is
marked with status information indicating the "under processing" status of the event record [i.e.,

under the notion of queue operation, a last record that has just been read is pointed by a read-pointer. In fact, the pointer's pointing position in the queue is a piece of essential information for tracking the status of the queue. Since Krishnamurthy's system uses input and output queues for holding CTOC data structure [Fig. 4A] and it also has to track the progress of the collection in the network [col.5, lines 14-21; col. 5, lines 42-48], it is clear that the queue pointer provides a "under processing" status of the event record].

14.   As to claim 15, Krishnamurthy further teaches that the method further comprises the steps of monitoring by a monitoring system the operation of the self-contained components of the mediation layer and, in case of failure of any of the self-contained components, automatically setting up a new self-contained component to replace the failed component [e.g., col. 5, lines 42-48; col.8, lines 49-59].

15.   As to claim 16, Krishnamurthy further teaches that the method comprises the steps of monitoring by a monitoring system the production capacity of the self-contained components of the mediation layer and, in case of insufficient production capacity of any of the self-contained components automatically setting up an auxiliary self-contained component parallel to the self-contained component with insufficient production capacity [e.g., col. 4, lines 45-62; col.11, lines 54-65; note that "dynamically modified at run time" implies automatic modification].

16.   As to claims 9, 17 and 24-52, since the features of these claims can also be found in
claims 1 and 16, they are rejected for the same reasons set forth in the rejection of claims 1 and
16 above.

Claim Rejections - 35 USC § 103

17.   Claims 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Krishnamurthy et al.(hereafter "Krishnamurthy")[U.S. Pat. No. 6421676], as applied to claims 1-
6, 9-12, 14-17 and 24-52 above, further in view of Blott et al.(hereafter "Blott")[U.S. Pat. No.
6449618].

18.   Blott is cited from Applicant's IDS and was cited in the previous office action.

19.   As to claim 18, Krishnamurthy does not specifically teach converting the format of event
records into a mediation layer format for processing and then converting the processed event
records into an operation system layer format.

        However, in the same field of endeavor Blott teaches an event processing system with the
format conversion as claimed [e.g., Blott: col.21 line 48 – col.22 line 26].

        It would have been obvious to one of ordinary skill in the art at the time the invention
was made to combine the teachings of Krishnamurthy and Blott by making using of
Krishnamurthy's data collection network, while distributing the data processing tasks into the
various intermediate data collectors for processing (along with format conversions) because it

alleviates the burden at Krishnamurthy's data compilation stage, which usually takes place when

relevant event records are collected [e.g., col.6, lines 26-32]

20.   As to claim 19, Blott further teaches that the step of processing event records comprises

at least one of the following:

        validating and analysing event records, enrichment of event records, aggregation and

correlation of event records, formatting of event records and rating [e.g., col.4, lines 4-8; col. 32,

lines 1-41].

21.   As to claim 20, Krishnamurthy and Blott further teaches that each of the self-contained

components operates independently and continuously once started [Krishnamurthy: Abstract

(e.g., initiate transfer process based on local queues); and Blott:col.7, lines 29-31 (i.e., a

"sharednothing" approach makes the RAEs running indepenedently among themselves)].

22.   As to claim 21, Krishnamurthy and Blott further teaches that the method comprises

steps of stopping the operation of a self-contained component by the self-contained component

itself, and performing said step of stopping the operation by the self-contained component only if

instructed so by a manager component of the mediation layer [e.g., Blott: col.2, lines 19-21;

col.28, lines 60-62].

23.   As to claim 22, Krishnamurthy and Blott further teaches that the method comprises the

steps of providing each of the self-contained components with its own individual settings, and

each of the self-contained components functioning according to its own individual settings
[e.g.,Blott: col. 22, lines 49- 61; note that since each cluster/RAE may be configured to deal
with dynamic customer need, it must be configured differently].

24.   As to claim 23, Krishnamurthy and Blott do not teach that said individual settings of
each of the self-contained components include a node base part of the settings, which is identical
to the node base parts of the other self-contained components within the mediation layer, and a
node application part of the settings, which contain custom processing rules and which is
different to the node application parts of at least most of the other self-contained components
within the mediation layer.

        However, template as basis for individual configuration file is well known in the art.
Furthermore, Blott teaches that certain configuration data (such as rate table) may be replicated
across different RAEs. On the other hand, the RAEs in each cluster are also adapted to
customer's needs [e.g., col. 9, lines 12-18; col. 22, lines 49-61].

        It would have been obvious to one of ordinary skill in the art at the time the invention
was made to keep configuration templates in a database node that is accessible to all the self-
contained components because the approach speeds up the configuration of settings that are
common to all the self-contained components.

25.   Applicant's arguments filed on 8/12/2008 for claims 1-6, 9-12 and 14-52 have been fully
considered but they are not deemed to be persuasive.

Specifically, with respect to a limitation in claim 1 Applicant argues that Krishnamurthy does not teach the feature that a buffered event record would not be removed until the record is "successfully passed through the following node."

26.   The examiner respectfully disagrees with applicant's remarks:

Initially, it is noted that the claim language does not use the phrase "successfully passed through the following node." Although in one wherein clause claim 1 requires that the event reocord be passed through three self-contained components, the retaining requirement is presented in another wherein clause, which has different context in passing through the buffers. Further, the examiner disagrees with Applicant by saying that the Depot (408, Fig. 4A) is not part of the buffer because CTOC is not written in Depots. Applicant is reminded that Depot is the real data storage for the collected data in terms of data segments indexed by CTOCs. Once a data segment is written into the Depot, it stays there until the CTOC is successfully transferred to a subsequent stage of data collector [see col. 8, line 60 – col. 9, line 2]. Krishnamurthy's Depot clearly matches the characteristic of the buffer described in Applicant's independent claims.

Even if one considers that the CTOC alone is an event record and the input and output queues (e.g., 402 and 404 of Fig. 4A) are the buffers, the prior art of Krishnamurthy still reads on the claims as shown below:

wherein the step of delivering event records comprises:

- writing the event records output by a preceding self-contained component of the mediation layer into a buffer [e.g., downstream collector 108b writes the collected data into a

corresponding segment in the depot and an OTOC from its own input queue 402 into its own

output queue 404 (by an input scheduler – col.9, lines 11-25)], *and*

  - reading the buffer substantially continuously by the subsequent self-contained

component of the mediation layer [e.g., collector 108a receives the collected data and OTOC

from 108b's depot and output queue respectively – col.9, lines 3-10 and 55-67],

  - wherein after reading an event record from a buffer [e.g., 402 of 108b], *a copy of*

the event record is retained in the buffer, and removed from the buffer only after successfully

outputting the event record from the reading self-contained component of the mediation layer

[i.e., the OTOC is retained in 402 of 108b until it is successfully outputted to 402 of 108a --

col.9, lines 26-33 and 62-67; note that the "after reading an event record from a buffer" in

this wherein clause is a general statement and it has nothing to do with the reading clause or

writing clause immediately above].

  It is noted that when a transfer fails, the corresponding OTOC is moved from a

collector's output queue back to its input queue [col.9, lines 26-33] is an act of retaining the

event record in the buffer. Furthermore, since both the input queue and output queue are

associated with a same collector [see Fig. 4A], the two queues together may be broadly

interpreted as a single buffer because there is not structural implication in the claim languages.

Based on this interpretation, the OTOC is retained within the same buffer even if it is moved

from the output queue back to the input queue.

  For at least the foregoing reasons, it is submitted that the prior art of record reads on the

claims.

27.   THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy

as set forth in 37 CFR 1.136(a).

28.   A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

will the statutory period for reply expire later than SIX MONTHS from the mailing date of this

final action.

Conclusion

Examiner note: Examiner has cited particular columns and line numbers in the references as

applied to the claims above for the convenience of the applicant. Although the specified citations

are representative of the teachings of the art and are applied to the specific limitations within the

individual claim, other passages and figures may apply as well. It is respectfully requested from

the applicant in preparing responses, to fully consider the references in entirety as potentially

teaching all or part of the claimed invention, as well as the contest of the passage as taught by the

prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday (8:00-5:00) .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(571) 273-8300 for official communications; and

(571) 273-3969 for status inquires draft communication.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Tai Lin

October 6, 2008

/Wen-Tai Lin/

Primary Examiner, Art Unit 2454